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ABSTRACT

The purpose of a Capstone Program is to provide an opportunity for an occupationally competent student to complete a baccalaureate degree with no more than two additional years of college. A two-year Capstone Program at Southern Illinois University at Carbondale was developed in 1972 to provide occupational graduates from community colleges with additional knowledge, skills, and teaching competencies. One hundred and three students were enrolled in the program during the school year 1973-74. These students, selected from all areas of Illinois, were enrolled in six schools or colleges in the university. Scholastically they achieved as well as or slightly better than the regular transfer students. The Capstone students may have gained their competencies from a community college, technical school, military, and/or work experience. It would appear that this concept will serve a need if it is applied properly with concern for what the student should achieve rather than how the institution can remain unchanged. The project staff and consultants believe that the Capstone concept is a viable method of training occupational teachers in Illinois. (Author/KE)

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DESIGNING CAPSTONE BACCALAUREATE DEGREE PROGRAMS

Built on Competencies Gained in Community College Occupationally Oriented Programs and Work Experience

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In Cooperation with the
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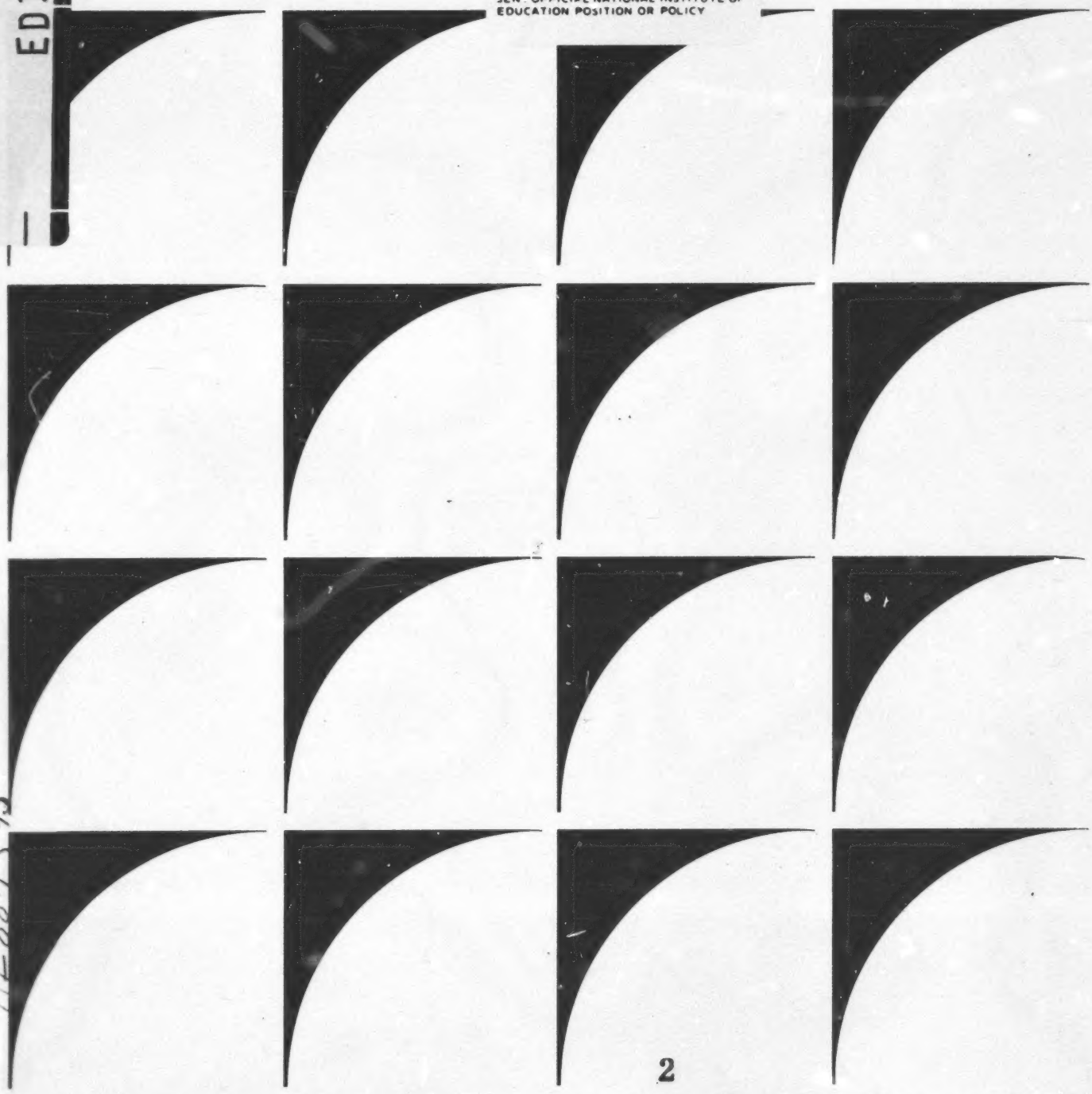

DESIGNING CAPSTONE BACCALAUREATE DEGREE PROGRAMS WHICH BUILD ON COMPETENCIES GAINED IN COMMUNITY COLLEGE OCCUPRATIONALLY ORIENTED PROGRAMS AND WORK EXPERIENCE

Eugene S. Wood
Thomas R. Stitt

IN COOPERATION WITH SOUTHERN ILLINOIS UNIVERSITY-CARBONDALE

STATE OF ILLINOIS
BOARD OF VOCATIONAL EDUCATION AND REHABILITATION
DIVISION OF VOCATIONAL AND TECHNICAL EDUCATION
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PREFACE

This report is based on a project funded by the Professional and Curriculum Development Unit of the Division of Vocational and Technical Education in cooperation with Southern Illinois University-Carbondale.

Consultants were selected to develop a Capstone model for preparing secondary teachers in each of the vocational areas in Illinois. The consultants and the vocational areas are as follows:

Mr. Robert Cottingham - Joliet Community College
Applied Biological and Agricultural Occupations

Dr. Bessie D. Hackett - Illinois State University
Personal and Public Service Occupations

Dr. Robert E. Nelson - University of Illinois
Business, Marketing, and Management Occupations

Dr. Marie Vittetoe - University of Illinois
Health Occupations

Dr. James Warner - Northern Illinois University
Industrial Oriented Occupations

Dr. Daniel E. Vogler - University of Michigan
Overall Consultant

This publication is intended to serve as a guide for universities that might desire to implement Capstone programs in one or more areas of vocational teacher training for state certification.

TABLE OF CONTENTS

Page

PREFACE. i

TABLE OF CONTENTS ii

CHAPTER
I INTRODUCTION
A Capstone Program 1
Background of Project. 2
Procedure Used in Project. 3

CHAPTER
II SIX CAPSTONE MODELS
A Capstone Proposal for Vocational Teacher Education 7
A Capstone Proposal for Applied Biological and Agricultural Occupations 11
A Capstone Proposal for Personal and Public Service Occupations (Home Economics). 17
A Capstone Proposal for Business, Marketing and Management Occupations. 24
A Capstone Proposal for Health Occupations 30
A Capstone Proposal for Industrial Oriented Occupations 36

CHAPTER
III SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS. 41

APPENDIX A 43

CHAPTER I

INTRODUCTION

A CAPSTONE PROGRAM

The purpose of a Capstone Program is to provide an opportunity for an occupationally competent student to complete a baccalaureate degree with no more than two additional years of college. The Capstone students may have gained their competencies from a community college, technical school, military, and/or work experience.

For a university to implement a Capstone Program, it must be willing to accept the following four premises:

1. That most community colleges and other post-secondary occupational training facilities and staff are equal to, or better than, those of the universities.

2. That occupational training will transfer at no loss of credit when the student stays in the same occupational area.

3. That a university should grant full credit for the general education courses of occupational programs, provided the courses meet the general education objectives required for the baccalaureate degree.

4. That students should be allowed to change their educational aspirations within the same occupational cluster without penalty or loss of credit.

Some of the advantages to be gained from a Capstone Program are as follows:

1. A Capstone student can graduate in two or less years. This makes it possible to graduate a well qualified teacher with a saving of time and money invested in education by the student and state.

2. Occupational students are encouraged rather than penalized for raising their aspirations and goals when pursuing a higher degree.

3. Universities need not invest resources to duplicate facilities, equipment, and staff to train for occupational competencies.

4. It provides a unique opportunity for developing secondary and post-secondary occupational teachers who possess strong work experience and training in a variety of technical specialities and sub-specialities.

BACKGROUND OF PROJECT

A two-year Capstone Program at Southern Illinois University at Carbondale was developed in 1972 to provide occupational graduates from community colleges with additional knowledges, skills, and teaching competencies. One hundred and three students were enrolled in the program during the school year 1973-74. These students were selected from all areas in Illinois and were enrolled in six schools or colleges in the university. Scholastically, these students achieved as well as or slightly better than the regular transfer students.

A series of three workshops was held in 1974 at Mt. Vernon, Elgin, and Peoria to formulate the basis for a "Capstone" model. Slightly over 100 staff members from junior colleges and four-year colleges participated in the workshops. The participants used an Associate Applied Science student named "Joe Capstone" and indicated the hours of credit which would be granted and hours required for completion of a B.S. degree. Options which were

considered included junior college teaching, secondary teaching, and business and industry. This information along with suggestions for implementation of the Capstone concepts was used by the consultants in the formulation of the five models.

Four out-of-state consultants were selected to evaluate the 1973-74 project and to make input for the proposed 1974-75 project. Many of their suggestions were incorporated into the 1974-75 project.

PROCEDURE USED IN PROJECT

The major purpose of the 1974-75 project was to develop Capstone models for preparing secondary teachers in the following five areas:

1. Applied Biological and Agricultural Occupations
2. Business, Marketing, and Management Occupations
3. Health Occupations
4. Industrial Oriented Occupations
5. Personal and Public Service Occupations

The first step in implementing the project was the selection of five consultants from Illinois state-supported institutions to develop the models in each of the five occupational clusters. These consultants were selected by the Division of Vocational and Technical Education staff and the Southern Illinois University-Carbondale project staff on the basis of background, interest, and reputation in their respective occupational areas.

An orientation workshop was held for the five consultants to cover the following areas:

1. Orientation to Capstone Concept

2. Report on First Year's Project

3. Formulation of Plan for the 1974-75 Project

The second workshop was held to develop preliminary Capstone models in each of the five occupational areas. The consultants were requested to select advisory members in their area representing universities, community colleges, industry, and students to make input in developing the models. Each consultant was urged to take his/her preliminary Capstone model, developed with the aid of an advisory committee, to individuals and groups to disseminate the information and get an evaluation and suggestions concerning the models. A short questionnaire was developed to get the group reaction when this model was presented (See Appendix A).

Dr. Daniel E. Vogler, Coordinator of the Undergraduate Occupational Teachers Program at the University of Michigan, was chosen as a consultant for the two workshops. Dr. Vogler directed a Capstone Program which began in the fall of 1971 with students who had graduated from a vocational-technical curricula in community colleges. The University of Michigan's Occupational Teacher Education Program is a competency oriented approach to teacher training. The program does not distinguish between occupational service areas (i.e., Trade and Industrial Education, Health Occupations, Business, and Distributive Education) for the professional course content. However, the technical content is quite different depending on the occupational subject to be taught. Common professional

teaching competencies are emphasized while individualized learning contracts and directed teaching experiences are utilized to develop applications to specific service areas.

Interim evaluation of Michigan's Undergraduate Occupational Teacher Education Program has indicated success, courses have received high ratings in relation to other courses in the School of Education, attrition is less than 5 percent, and earned grade points are in excess of 3.00 for over 75 percent of the students.

CHAPTER II

SIX CAPSTONE MODELS

Each of the consultants representing the five vocational areas prepared Capstone models for training secondary teachers in his/her respective area. These models were based on the recommendation of their advisory committees and other professional educators with whom they discussed their models. The models presented in this chapter represents the consultants' conclusions and do not necessarily represent the requirements of the universities they represent or the present requirements of the Illinois Teachers Certification Board.

The first model presented in this chapter by the project staff is an overall Capstone model based on experience with a pilot Capstone Program at Southern Illinois University at Carbondale with input from the students and their advisors as well as state-wide workshops.

The models presented in this chapter have a standardized format for the purpose of comparison by areas, but no attempt was made to standardize the results within the format.

I. A CAPSTONE PROPOSAL FOR VOCATIONAL TEACHER EDUCATION

submitted by
Dr. Eugene S. Wood and Dr. Thomas R. Stitt
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II. PROGRAM OVERVIEW

The Capstone Program for vocational teacher education is proposed to allow graduates of a two-year occupational program to attain a baccalaureate degree and achieve secondary teacher certification with the equivalent of two additional years of credit. This program would allow occupational students to change their occupational goals within their field of training without undue penalty.

Obtaining qualified teachers in many of the vocational areas is a major problem in Illinois and the nation. The students graduating from two-year occupational programs with proper additional training should be one of the best sources for filling these positions. A Capstone Program should help solve teaching shortages in many occupational areas.

III. OBJECTIVES OF THE VOCATIONAL TEACHERS EDUCATION CAPSTONE PROGRAM

A. Develop a program for selected occupational students to continue their education and become certified secondary teachers.

B. Develop guidelines for implementing a Capstone Program to meet the professional needs of students.

C. Suggest minimum requirements in the following areas:

General Education
Technical Education
Professional Education

D. List special considerations and recommendations for implementing a Capstone Program.

IV. GENERAL EDUCATION REQUIREMENTS

	Community College	University
A. Natural Science	3	3
B. Social Science	3	3
C. Humanities	3	3
D. Communications	4	4
E. Health and P.E.	2	2
TOTALS	15	15

The above general education requirements represent the experience of the authors in working with a pilot program in one university rather than a concensus of the consultants and their advisory committees. The area having the least support from consultants and students is the humanities area.

V. TECHNICAL REQUIREMENTS

	Community College	University
A. Teaching Major	45	15

If the student receives credit for 15 semester hours of general education courses, the remaining 45 should apply to the teaching major. The 15 hours at the university level could be used to strengthen the major, broaden the teaching area, or obtain a

minor in a related area. Additional intern work or on-the-job training may be desirable in some areas.

VI. PROFESSIONAL EDUCATION REQUIREMENTS

	Community College	University
A. Education Courses	0	10
B. Student Teaching	0	10
TOTALS	0	20

VII. RECOMMENDED ELECTIVES

	Community College	University
A. Electives	0	10

Electives should be selected by the student and advisor, depending on the individual student's academic needs and interests. All elective hours could be used to supplement general, technical, or professional requirements. The 10 hours of electives plus the 15 hours in the technical area should provide flexibility for developing an individualized program.

VIII. PROGRAM SUMMARY

Area	Semester Hours
A. General Education	30
B. Technical or Teaching Area	60
C. Professional Education	20
D. Electives	10
TOTAL	120

IX. MAJOR CONSIDERATIONS AND UNIQUE FEATURES FOR IMPLEMENTATION

A. Articulation should be maintained between community colleges and universities to implement and maintain a true Capstone Program.

B. A special procedure should be implemented to select and admit Capstone students.

C. Special advisors should be trained to develop programs and advise Capstone students.

D. Capstone students should be able to meet residence requirements by taking their last 30 hours at the baccalaureate degree awarding institution.

E. All students should have the opportunity to proficiency any degree requirements.

F. All students completing an approved Capstone Program for teacher training should receive state certification by the Illinois Office of Education.

G. All Capstone students should have an opportunity to receive university credit for approved work experience, military training, or other experiences that should be of value as a teacher if properly evaluated and documented.

I. A CAPSTONE PROPOSAL FOR APPLIED BIOLOGICAL AND AGRICULTURAL OCCUPATIONS

submitted by
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II. PROGRAM OVERVIEW

The ability of the education system to train people and meet occupational shortages quickly and efficiently causes a Capstone-concept program to be a necessity in Agricultural Education.

The most serious shortage in agriculture is in education. In the Midwest the educational system has not been able to graduate enough secondary teachers of agriculture to meet the need. This would indicate that there may not be enough students to keep post-secondary education operable and that there may not be enough personnel prepared to meet the need for skilled employees in already short agricultural occupations.

If it can be assumed that students from a community college vocational program have been properly trained for entry level into a specific group of vocations in agriculture, then the Capstone model has merit. The proof of the assumption comes from

industry's support of community college programs and industry's acceptance of the graduate with the Associate Degree in Applied Science.

If additional education were easily available, community college graduates could advance into secondary education teaching, higher levels in agricultural industries or community college teaching. The ability of the student to change occupational goals within his/her field with ease and without penalty is the objective of the Capstone model. Capstone programs should help solve skilled personnel shortages in many areas of agriculture.

III. OBJECTIVES OF THE APPLIED BIOLOGICAL AND AGRICULTURAL CAPSTONE PROGRAM

A. Develop a program for selected occupational students to continue their education and become certified secondary teachers.

B. Develop guidelines for implementing a Capstone Program to meet the professional needs of students.

C. Suggest minimum requirements in the following areas:

General Education
Technical Education
Professional Education

D. List special considerations and recommendations for implementing a Capstone Program.

IV. GENERAL EDUCATION REQUIREMENTS

	Community College	University
A. Natural Science	3	3
B. Social Science	3	6
Psychology Economics History		
C. Communications and Fine Arts	3	3
English Journalism		
TOTALS	9	12

The minimum of 21 hours could be taken at two or four-year schools. The natural science requirement, including mathematics, could serve as an elective or as a course in the teaching major or minor. Specific courses should be selected by the student and advisor. It is strongly recommended that more than 21 hours be taken with these being considered a part of the elective requirement.

V. TECHNICAL AGRICULTURAL REQUIREMENTS

	Community College	University
A. Teaching Major	45	0
B. Internship	15	0
TOTALS	60	0

Sixty hours in technical agriculture should be transferred from the community college, The minimum for a degree should be 42 hours of which 12 is occupational experience program or

equivalent work in industry. Credit above 42 hours which fall into the technical or specialized courses may be taken as electives if the 40 hour elective requirement is used.

VI. PROFESSIONAL EDUCATION REQUIREMENTS

	Community College	University
A. Professional Education	0	12
Introduction to Vocational Education Educational Psychology History and Philosophy Methods		
B. Student Teaching	0	5
TOTALS	0	17

The 17 hours is considered minimum; however, one course in each of the areas indicated was considered minimum. These courses could be taken at any institution, but it was felt that the four-year institution would carry the responsibility for teaching expertise.

VII. RECOMMENDED ELECTIVES

	Community College	University
A. Electives	0	22-40

If only minimums are met in the program requirements, up to 40 hours of electives would be possible. These should be selected by the student and his advisor depending on the individual student's academic needs and interests. All elective hours could be used to supplement general, professional, or technical require-

ments. With this philosophy on recommended electives, the Capstone model becomes individualized and flexible.

VIII. PROGRAM SUMMARY

Area	Semester Hours
A. General Education Requirements	21
B. Professional Education Requirements	17
C. Technical Area Agriculture Requirements	60
D. Recommended Electives	22
TOTAL	120

IX. MAJOR CONSIDERATIONS AND UNIQUE FEATURES FOR IMPLEMENTATION

Professional agriculture educators are assuming responsibility for the total system of agriculture education as evidenced by increased course and program articulation. Articulation should help to implement Capstone-type programs and needs to continue to insure the responsiveness of the educational system to fluctuating occupational shortages.

A special procedure in university admissions offices or an admissions officer with special responsibility for Capstone applications is beneficial to implementation of the program.

To keep from losing the Capstone type student and in order to personalize the program, a specific advisor in the student's interest area may be appropriate.

Credit is being given for supervised occupational education at a community college and for work experience in industry.

This credit is being recognized by four-year schools. Guidelines for this type of credit are being prepared in agriculture and are being finalized.

The open, non-residence requirement degree is gaining favor and a reduction of the residence requirement would be beneficial to the implementation of Capstone type programs.

In some cases, general education requirements may need to be decreased and technical and elective requirements changed. However, if credit for technical courses taught by the community college can equate to junior-senior level course work, only a minimum of requirement change may be necessary.

Perhaps the problem of quotas for certain programs at four-year schools can be solved by those university programs accepting more of the community college technical course credit and, thereby reducing need for additional facilities and staff.

To insure the success of the Capstone type transfer student, a screening process requiring a letter of recommendation would be beneficial. Additionally, before a student could qualify for a Capstone type degree, a probationary period (a semester or a quarter) could be imposed.

Where credits in community college courses differ from credit given for similar courses at four-year institutions, the community college credit could apply, the four-year institution credit could apply, or the subject matter could be considered. In any system, the student should be able to graduate with the Bachelor's Degree within a two-year period.

I. A CAPSTONE PROPOSAL FOR PERSONAL AND PUBLIC SERVICE OCCUPATIONS (HOME ECONOMICS)

submicted by
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II. PROGRAM OVERVIEW

During the 1974-75 study of how the Capstone concept might be implemented in occupational teacher education, a home economics advisory committee conferred regarding curriculum policies, program planning, and problems peculiar to the field. This committee represented various levels and aspects of home economics education. Meetings of the chairman and various committee members were held in Springfield, Harrisburg, and Carbondale. In addition, the chairman visited campuses of College of Du Page and Joliet Junior College and held conferences at Illinois State University to discuss articulation with community college personnel.

A Home Economics Capstone Model for teacher education was developed and revised according to suggestions of committee members and consultants from community colleges and four-year institutions. On March 3, 1975, in Springfield, Bessie Hackett presented the Capstone Program and explained the proposed model at the joint staff conference of Home Economics Teacher Educators from all state universities and personnel from the Division of Vocational and Technical Education. These individuals were given questionnaires concerning reactions to Capstone and the proposed model to complete and return. Although the returns were proportionately few in number, those received were supportive of the program and the proposed model. It is conjectured that the teacher educators would have hastened to indicate opposition through the anonymous questionnaires if their overall reactions had been negative.

The areas of greatest activity and enrollment within or related to home economics at many community colleges are Child Care and Food Service Occupations. Interior Design is also a popular area of study at this level. The state universities in Illinois also incorporate these areas within their teacher education curriculums. There is an increasing demand for teachers who have in-depth study in one or more of these areas to conduct occupational programs at the secondary level.

III. OBJECTIVES OF THE PERSONAL AND PUBLIC SERVICE OCCUPATIONS CAPSTONE PROGRAM

A. Having completed a two-year occupational curriculum at a community college or technical school, the Capstone student will be able to complete a baccalaureate degree in home economics teacher education in two years as a full-time student.

B. Through enabling terminal occupational graduates of junior institutions to pursue teacher education without penalty, universities will promote the preparation of competent home economics teachers to meet the demand for specialized occupational programs in public schools.

IV. GENERAL EDUCATION REQUIREMENTS

It is proposed that minimum credit of 23 semester hours be granted Capstone students for general education courses taken prior to admittance to the senior institutions. Approximately 19 additional hours of courses in language arts, natural sciences, humanities, social science, physical education, and psychology (if not previously completed) would then complete university requirements.

General Education	Community College	University
A. Language Arts		
Language & Composition	3	0
Speech		
Literature		

	Community College	University
Composition Grammar Journalism	3	3
B. Natural Sciences		
Mathematics Chemistry	6	3
C. Humanities		
Art, Music, Philosophy, Foreign Language, Lit., Religion	3	3
D. Social Science		
U.S. Hist. or Am. Gov.	0	3
History, Political Science, Sociology, Economics	3	6
E. Psychology	3	0
F. Physical Education	2	1
TOTALS	23	19

V. TECHNICAL AND SPECIAL REQUIREMENTS

It is recommended that approximately 37 semester hours of credit be granted Capstone students for specialized courses taken in their post-secondary institutions and for specialized work experience. It should be noted that no courses identified as "pre-college level" would qualify; and further, each senior institution would necessarily have to evaluate work experience credit according to its own standards. It is expected that 15 additional hours in other home economics content offerings

would need to be completed at the senior college level and that at least one home economics teaching methods course would be necessary.

Teaching Major	Community College	University
A. Specialized H. Ec. Tech. Courses	37	0
B. Work Experience	0	0
C. Home Economics Methods	0	3
D. Home Economics (Gen.)	0	15
TOTALS	37	18

VI. PROFESSIONAL EDUCATION REQUIREMENTS

According to the proposed Home Economics Capstone Model, 24 semester hours would be necessary for majors--both Capstone and on-going students--to complete their professional education preparation. These hours are specific in each of four areas within the teacher education curriculum: educational psychology, teaching methods and curriculum, philosophy of education, and student teaching.

Professional Education	Community College	University
A. Educational Psychology	0	3
B. Teach. Methods and Curriculum	0	8
C. Student Teaching	0	10
D. Philosophy of Education	0	3
TOTALS	0	24

VII. RECOMMENDED ELECTIVES

Because of the broad content areas within the field of home economics, it did not seem reasonable or practical to suggest additional electives for the Capstone student entering a teacher education program. However, each case might be analyzed separately; and depending upon the area of specialization, individual recommendations could be made by academic advisors.

VIII. PROGRAM SUMMARY

Area	Semester Hours
A. General Education	42
B. Technical or Teaching Area	55
C. Professional Education	24
D. Electives	0
TOTAL	121

IX. MAJOR CONSIDERATIONS AND UNIQUE FEATURES FOR IMPLEMENTATION

Capstoning occupationally competent students in home economics teacher education programs could fulfill a definite need. One teacher educator responding to the Capstone questionnaire explained her feelings: "Because of the problems we have within the technical skill training part of our programs, I especially feel this approach is good."

Major problems of implementation cited by home economics educators included the following:

1. Present 10E stipulations for program entitlement.

2. Difficulties in acquiring an adequate number of senior college credit hours to fulfill university requirements.

3. Determination of credit granted for work experience.

It is anticipated that the previously mentioned problems may conceivably be resolved without lowering standards. On the contrary, most home economics educators, when presented with the Capstone model, felt that this was a commonsense approach to training specialized home economics teachers for new programs throughout Illinois.

I. A CAPSTONE PROPOSAL FOR BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS

submitted by
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4. Mrs. Susan Greenwood
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   Department of Vocational and Technical Education
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II. PROGRAM OVERVIEW

Many students in business programs in community colleges acquire skills necessary for employment in the "world of work". Career goals of students change and some students aspire to become Business Education teachers. In many universities, program requirements prohibit students who graduate from a two-year community college business program from achieving a baccalaureate degree after four years of college level studies.

The Capstone Program for Business Education is designed to allow graduates of a two-year business occupational program to attain a baccalaureate degree and achieve teacher certification after two additional years of study. The Capstone Committee for Business Education used the proposed program requirements for the Secretarial Science Curriculum at Parkland College in Champaign, Illinois. The primary goal of the Committee was to develop a two-year program of study which would build on the course work taken at Parkland College and prepare a student for certification as a Business Education teacher.

III. OBJECTIVES OF THE BUSINESS, MARKETING, AND MANAGEMENT OCCUPATIONS CAPSTONE PROGRAM

A. The "Capstone" Program in Business Education is for selected occupational students to continue their education toward teacher certification without being penalized.

B. The program is designed to facilitate articulation between the occupationally oriented A.A.S. degree and the teacher education oriented B.S. in Education degree at the university level.

C. The credit requirements of the occupationally oriented A.A.S. degree should not be in conflict with the Business Education baccalaureate degree requirements.

D. The "Capstone" component in Business Education is designed to complement the technical education component achieved in the occupationally oriented A.A.S. degree.

IV. GENERAL EDUCATION REQUIREMENTS

	Community College	University
A. Natural Science	0	0
B. Social Science	6	0
Economics	0	3
C. Communications		
English	6	0
Speech	0	3
D. Health and P.E.		
First Aid and Safety	0	2
TOTALS	12	8

The Capstone Committee for Business Education indicated that the general education requirements need not include any required courses pertaining to Natural Science. The other courses, however, were considered essential to the preparation of a potential Business Education teacher.

V. TECHNICAL BUSINESS REQUIREMENTS

	Community College	University
A. Teaching Major (Business Education)	0	0
B. Principles of Accounting I	4	0
C. Principles of Accounting II	0	3
D. Introduction to Business	3	0
E. Principles of Management	0	3
F. Current Trends in Business	0	3

	Community College	University
G. Directed Work Experience	4	0
H. Work Experience	0	0-12
I. Business Communications	3	0
J. Financial Management	0	3
K. Marketing	0	3
L. Legal Environment of Business	0	3
M. Typewriting	8	0
N. Shorthand	12	0
O. Office Skills	14	0
P. Methods of Teaching Skill Subjects	0	3
Q. Methods of Teaching Basic Business Subjects	0	3
R. Cooperative Vocational and Technical Educational Programs	0	4
S. Principles of Business Education	0	3
TOTALS	48	31-43

The Capstone Committee for Business Education believed that work experience is an important aspect of preparing to become a Business Education teacher. A Current Trends in Business course at the university level would also be of great value. The requirements of 12 semester hours for Shorthand and 14 semester hours for Office Skills were justified because of their value to the potential teacher.

VI. PROFESSIONAL EDUCATION REQUIREMENTS

	Community College	University
A. Student Teaching	0	7
B. Educational Psychology	0	3
C. Post-Student Teaching Seminar	0	3
TOTALS	0	13

The Capstone Committee for Business Education indicated a strong desire to include a post-student teaching seminar as part of the Professional Education Requirements.

VII. RECOMMENDED ELECTIVES

The number and type of elective courses would depend upon the number of hours completed by the individual student. The purpose of the electives should be to assist the student in preparing his or her specific teaching area, such as teaching in a community college, private business school, inner-city high school, or other type of teaching situation.

VIII. PROGRAM SUMMARY

Area	Semester Hours
A. General Education Requirements	20
B. Professional Education Requirements	13
C. Technical Area Business Requirements	79-91
D. Recommended Electives	0-13
TOTAL	120

IX. MAJOR CONSIDERATIONS AND UNIQUE FEATURES FOR IMPLEMENTATION

A. We can resolve that residence requirements will be attained by students taking their last 30 hours at the baccalaureate degree awarding institution.

B. We can resolve that students who complete the Capstone Program will be certified as a Business Education teacher by the Illinois Office of Education.

C. We can resolve that students will receive up to 12 semester hours of credit by the university for work experience gained within a three-year period prior to beginning the Capstone Program.

D. We can resolve that all credit earned at the community college (up to one-half of the credit required for the baccalaureate degree) will transfer to the senior level institution,

E. We can resolve that all students will have the opportunity to proficiency any skill requirements in the Business Education program.

I. A CAPSTONE PROPOSAL FOR HEALTH OCCUPATIONS

submitted by
Dr. Marie Vittetoe
University of Illinois
Urbana, Illinois

CAPSTONE COMMITTEE FOR HEALTH OCCUPATIONS

1. Harry Cartwright, B.S., A.R.R.T.
   University of Illinois - Health Occupations
   Graduate Teaching Assistant and
   Respiratory Therapist

2. S. Constance Fahey, M.Ed., M.T. (ASCP)
   Mercy Hospital, Urbana
   Laboratory Supervisor and Medical Technologist

3. Ellen Hooker
   R.N., M.S. Health Occupations Faculty
   Graduate Student
   Nurse with diverse work experiences

4. Bob Owens
   Dean of Allied Sciences
   Parkland College, Champaign

II. PROGRAM OVERVIEW

The University of Illinois (Urbana-Champaign) Health Occupations Teacher Education program which utilizes the Capstone concept has been functional since 1971 when the first students were admitted. To date there have been fifteen graduates; fourteen more students are to be graduated by the end of the summer term. These graduates as well as other students have entered this Capstone Program with various health field preparation from many different educational programs. The teacher education curricula allow the students to prepare for a teaching career in their chosen field and for the educational level of their choice. Seldom can students receive equivalent university

credit for technical courses taken elsewhere. The Capstone concept allows for this variation of preparation through conversion of technical credit to academic credit by special arrangements with the admissions and records office.

III. OBJECTIVES OF THE HEALTH OCCUPATIONS CAPSTONE PROGRAM

This Capstone Program was designed to prepare health care practitioners as teachers for secondary health occupations programs. Because few health practitioners possess teacher certification and because such certification is required for secondary school teachers in Illinois, the Capstone Program, provides such a mechanism.

A bachelor's degree and teacher certification may be earned simultaneously by utilizing previous technical credit in the academic preparation.

Upon completion of a Capstone Program some graduates choose to teach in settings other than the secondary schools, such as hospitals or community colleges. Students who pursue such a career are counseled to take courses appropriate for their perceived future roles.

IV. GENERAL EDUCATION REQUIREMENTS

	Community College	University
A. Natural Science	8	0
B. Social Studies	14	0
C. Communication	8	0
D. Health and P.E.	0	0
TOTALS	30	0

Health requirements are included in the technical education component.

Social studies include U.S. History or U.S. Government needed for teacher certification.

Communication courses are required so that classroom facilitation skills may be enhanced.

V. TECHNICAL HEALTH REQUIREMENTS

	Community College	University
A. Technical Specialty	30-36	9*
B. Internship (one year experience or equivalent)	0	14
TOTALS	30-36	23

Since health practitioners have programs unique to their fields, no specific set of courses has been given. The requirement varies with the specialty and would be fulfilled by graduation from approved schools or by having met credentialling standards.

The internship is suggested as a means for strengthening the expertise of those who have not completed such experience prior to entrance into a Capstone Program. The committee supports the premise that work experience is essential before entrance into the teaching role in the health field. Furthermore, recency of such experience is imperative.

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*Suggested courses to total 9 semester hours
Health care professions, needs, etc.
Health care delivery systems, trends, and issues
Advanced technical specialty courses

VI. PROFESSIONAL EDUCATION REQUIREMENTS

	Community College	University
A. Combination of Courses to Include:	0	12
Educational Policies Educational Psychology Vocational and Technical Education Teaching Methods Tests and Measurements		
B. Student Teaching	0	7
TOTALS	0	19

Since students have a variety of goals as well as experiential and academic backgrounds, their courses need to be appropriately tailored to fit their needs.

Student teaching experiences are required for all who wish teacher certification.

VII. RECOMMENDED ELECTIVES

	Community College	University
A. Minor or Free Electives	0-6	18-24**

Because each student has different goals, these electives should represent preparation for future roles or personal development. It should also be noted that students who enroll in Capstone may bring many credits from other sources. If these credits are deemed appropriate, they are counted as elective credits.

**Some suggested electives
Counseling and guidance
Humanities
Advanced science
Cultural anthropology
Nutrition

VIII. PROGRAM SUMMARY

Area	Semester Hours
A. General Education	30
B. Professional Education	19
C. Technical Area - Health Specialty	53
D. Recommended Electives	18
TOTAL	120

IX. MAJOR CONSIDERATIONS AND UNIQUE FEATURES FOR IMPLEMENTATION

A. We can resolve that residence requirements are met through the last thirty hours taken at the degree granting institution.

B. We can resolve that evaluation procedures for work, military and non-graded training have not been worked out. Recent work experience (within the last two years) is required in the health field of choice. On the basis of clock hours completed, university credit is granted for diploma program courses. Technical credit awarded through community colleges is translated as equivalent academic credit. Proficiency tests may be given as permitted by university regulations.

C. We can resolve that each health practitioner must be credentialled according to accepted standards of that health specialty.

D. We can resolve that state teacher certification requirements will be met through completion of the Capstone Program.

E. We can resolve that state licensure is required for some health practitioners such as nurses and dental personnel.

F. We can resolve that few university programs allow academic credit for technical credit courses. Furthermore, few, if any, academic programs for health practitioners meet teacher certification requirements.

Therefore, the Capstone approach is unique for the education of health personnel as teachers.

I. A CAPSTONE PROPOSAL FOR INDUSTRIAL ORIENTED OCCUPATIONS

submitted by:
Dr. James C. Warner
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DeKalb, Illinois

CAPSTONE COMMITTEE FOR INDUSTRIAL ORIENTED OCCUPATIONS

1. Mr. Richard Savage
   Training Director
   Caterpillar Tractor Company
   Aurora, Illinois

2. Mr. Leland Thompson
   Assistant Dean of Instruction for
   Occupational Programs
   Waubonsee Community College
   Aurora, Illinois

3. Dr. Conard White
   Assistant Professor
   Department of Industry and Technology
   Northern Illinois University
   DeKalb, Illinois

II. PROGRAM OVERVIEW

The problem of teacher shortages in nearly all occupational program areas continues to be chronic and appears to be worsening--not only in Illinois but across the nation. In addition, because of increasing economic constraints, there seems to be little possibility that teacher training programs as currently structured can expand to meet the need. Therefore, alternate methods are being sought which will permit an increase in the supply of instructional personnel without loss of quality.

The Capstone Program appears to offer one possible solution to the problem. An assumption of the Capstone Program is that occupational competency can be achieved in a variety of ways

(through apprenticeship and/or work experience; training in the military; through occupational programs at the community college, etc.), therefore, more resources can be devoted to professional teacher preparation and advanced technical course work.

Although the proposed Capstone Program is designed to prepare Trade and Industrial Occupational teachers from the graduates of two-year community college occupational programs, the concept is equally appropriate for those gaining occupational competency through some other means. Obviously, evaluation of occupational competency is a necessary prerequisite in any case.

III. OBJECTIVES OF THE INDUSTRIAL ORIENTED OCCUPATIONS CAPSTONE PROGRAM

A. Prepare, at the baccalureate level, professionally competent teachers for the Trade and Industrial occupations who are certifiable to teach at the secondary school level.

B. Develop guidelines for implementing a Capstone Program to meet the professional needs of students.

C. Suggest minimum requirements in the following areas:

General Education
Technical Education
Professional Education

D. List special considerations and recommendations for implementing a Capstone Program.

IV. GENERAL EDUCATION REQUIREMENTS

	Community College	University
A. Natural Science	6	3
B. Social Science	6	3

	Community College	University
C. Humanities	6	3
D. Communications	6	0
E. Health and Physical Education	3	0
TOTALS	27	9

Included within the Natural Science area will be at least three hours in mathematics and within the Social Science area will be courses in U.S. History or U.S. Government needed to meet Illinois certification requirements.

V. TECHNICAL REQUIREMENTS

	Community College	University
A. Teaching Major	35	24

Of the twenty-four semester hours in the teaching major taken at the university, 8 semester hours may be taken through an appropriate internship.

VI. PROFESSIONAL EDUCATION REQUIREMENTS

	Community College	University
A. Professional Education	0	12
Educational Psychology Evaluation Content and Methods		
B. Student Teaching	0	7
TOTALS	0	19

It is assumed that all professional education requirements will be taken at the four-year institution. Student teaching is required of all seeking teacher certification.

VII. RECOMMENDED ELECTIVES

	Community College	University
A. Electives	0	10

Elective hours should be selected by the student in consultation with an advisor and these electives should contribute to meeting the individual student's current and future career goals. Elective credit may also be granted for appropriate experiences gained from sources other than the university. Such credit will be granted on an individual basis.

VIII. PROGRAM SUMMARY

Area	Semester Hours
A. General Education	36
B. Technical or Teaching Area	59
C. Professional Education	19
D. Electives	10
TOTAL	124

IX. MAJOR CONSIDERATIONS AND UNIQUE FEATURES FOR IMPLEMENTATION

A. Student selection criteria should be developed and provision made for special advisors to assist the Capstone student.

B. Admission procedures should be defined including any exceptions to standard policies and practices.

C. A university/community college articulation plan should be developed to meet the particular needs of the Capstone student.

D. Provision should be made to accept certain technical courses (i.e., technical mathematics and technical physics) toward meeting general education requirements.

E. Provision should be made for evaluating and granting credit for appropriate work experience.

F. Students completing the Capstone Program in the teacher education sequence should receive state certification to teach at the secondary school level.

CHAPTER III

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The Capstone concept is not new and variations of this concept have been implemented by several educational institutions. Each institution implementing this concept has developed several unique features in its program. It would appear that this concept will serve a need if it is applied properly with concern for what the student should achieve rather than how the institution can remain unchanged. The educational needs of students enrolled in a Capstone Program are basically no different from those enrolled in other teacher education programs. All students should be provided with selected learning experiences which are designed to maximize their effectiveness as an occupational teacher regardless of program.

The participants in the workshops held by the consultants were supportive of the Capstone concept and over 75 percent of the participants indicated this would be a valid method of training secondary occupational teachers. The major concerns expressed by these participants were in the following areas:

1. Selection of students
2. Equitable translation of a student's background, experience, and education into transfer credit

3. Selection of knowledges, skills, and attitudes which should comprise the educational program

4. Evaluation of students and programs

These concerns should apply to all educational programs and could be resolved by implementing the following:

1. Train guidance counselors, advisors, and placement staff to better serve Capstone students.
2. Improve the systems of evaluating, documenting, and awarding credit for work experience, military training, and other experiences.
3. Individualize the programs of Capstone students based on competencies needed rather than just courses to be taken.
4. Utilize a systematic follow-up of graduates for evaluating programs.

The project staff and consultants believe that the Capstone concept is a viable method of meeting the needs of students, the teaching profession, and society, and that universities should consider it as one important method of training occupational teachers in Illinois.

CAPSTONE QUESTIONNAIRE

Please take five minutes to answer the questions.

1. My present position would be best described as (check one).
   ( ) Administrator ( ) Counselor
   ( ) Teacher ( ) Other_____

2. If trained as a vocational educator, check area or specialty training.
   ( ) Industrial ( ) Business
   ( ) Health ( ) Personal and Public Service
   ( ) Agricultural

3. I believe that the Capstone concept as described on the first page would be a good method of training secondary occupational teachers (circle one).

strongly agree		no opinion		strongly disagree
1	2	3	4	5

   Comments_____

4. I believe that the Capstone model presented is adequate to train secondary teachers in the following areas: (circle one)

	strongly agree		no opinion		strongly disagree
General Education	1	2	3	4	5
Subject Matter	1	2	3	4	5
Professional Education	1	2	3	4	5

   Comments_____

5. I believe that four-year universities training secondary occupational teachers should implement Capstone programs (circle one).

strongly agree		no opinion		strongly disagree
1	2	3	4	5

6. Rank agencies and persons you believe could be most influential in Illinois in implementing the Capstone concept (rank from 1-6)..

Agencies	Persons
( ) Four-Year Universities	( ) Presidents of Universities
( ) Community Colleges	( ) Deans
( ) Ill. Division of Voc. & Tech. Ed.	( ) Chairmen
( ) Ill. Board of Higher Education	( ) Counselors
( ) Ill. Community College Board	( ) Teachers
( ) Ill. Teacher Certification	( ) Students

   Comments_____